Revised Expanded "IT Decision" Questions

Last Updated 13-May-97

I. Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?
(This question requires the permittee to identify environmental effects, both potential and real.)

A. What are the potential environmental impacts of the permittee's proposed facility?

1. What wastes will be handled?
    a. Classes of chemicals
    b. Quantities (hazardous and non hazardous)
    c. Physical and chemical characteristics
    d. Hazardous waste classification (listed, characteristic, etc.)

2. How will they be handled?
    a. Treatment
    b. Storage
    c. Disposal

3. Sources of waste
    a. On-site generation (type and percentage of total handled)
    b. Off-site generation (type and percentage of total handled)

4. Where will the wastes be shipped if not handled at this site?

5. What wastes will remain on-site permanently?

B. By which of the following potential pathways could releases of hazardous materials from the proposed facility endanger local residents of other living organisms?

1. Air
2. Water
3. Soil
4. Food

C. What is the likelihood or risk potential of such releases?

D. What are the real adverse environmental impacts of the permittee's proposed facility?

1. Short term effects
    a. Land area taken out of system

2. Long term effects

II. Does a cost benefit analysis of the environment impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?
(This question requires the permittee to perform a cost-benefit analysis, or at least a quantitative indication of the economic benefits and a qualitative description of the negative impacts expected from the permittee's operation. The latter should come from the answer to question I.)

A. How was it determined that this facility was needed?

1. Local or regional survey
2. On-site or off-site needs
3. Regional solid waste management benefit
4. Generic survey of solid waste needs (compatibility with master plan)

B. What will be the positive economic effects on the local community?

1. How many permanent jobs will be created?
2. What is the expected annual payroll?
3. What is the expected economic multiplier from item B2?
4. What is the expected tax base and who will receive benefits?

C. What will be the potential negative economic effects on the local community?

1. What are the possible effects on property values?

2. Will public costs rise for:
    a. Police protection
    b. Fire protection
    c. Medical facilities
    d. Schools
    e. Roads (also see below)

3. Does the prospective site have the potential for precluding economic development of the area by business or industries because of risk associated with establishing such operations adjacent to the proposed facility?

D. Was transportation a factor in choosing the proposed site?

1. What mode(s) of transportation will be used for the site?
    a. Truck
    b. Rail
    c. Barge
    d. Other

2. What geographical area will it serve?
3. By how much will local road traffic volume increase?
    a. Can local roads handle the traffic volume expected?
    b. Can local roads handle the weight of trucks?

E. What are the long-term expectations of the proposed site?

a. Longevity of the facility
b. Who owns the facility
c. Are the owners financially backed by others?
d. When is closure anticipated?
e. Who is responsible for the site after closure?
f. What assurances will there be that the site will be closed in accordance with the plan?
g. What financial assurances will be established to demonstrate the ability to handle problems after closure?
h. Who certifies that the site is properly closed?
i. How are people protected from unwittingly buying land after closure
    i. Is the closed facility recorded in the deed?
    ii. What future uses are possible?

III. Are there alternative projects, which would offer more protection to the environment than the proposed facility with out unduly curtailing nonenvironmental benefits?

(This question requires the permittee to demonstrate having considered alternate technologies.)

A. Why was this technology chosen (e.g., incineration over landfilling?)

1. Are other technologies available?
2. Describe the engineering design and operating techniques used to compensate for any site deficiencies.

B. Is the proposed technology an improvement over that presently available?

C. Describe the reliability of technology chosen.

1. Past experiences.
2. Environmental Impacts

D. Describe the sequence of technology used from arrival of wastes to the end process at the facility (flow chart).

1. Analysis of waste
2. Unloading
3. Storage
4. Treatment
5. Monitoring
6. Closure
7. Post-Closure
8. Disposal
9. Any residuals requiring further handling

E. Will this facility replace an outmoded/worse polluting one?

F. What consumer products are generating the waste to be disposed? Are there alternative products that would entail less hazardous waste generation?

IV. Are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing nonenvironmental benefits?
(This is the question that deals directly with siting criteria.)

A. Why was this site chosen?

1. Specific advantages of the site;
2. Were other sites considered and rejected?
3. Is the location of the site irrevocable; i.e., would denial of permit based on site preclude the project?

B. Is the chosen site in or near environmentally sensitive areas?

1. Wetlands
2. Estuaries
3. Critical habitat
4. Historic or culturally significant areas
    a. Indian mounds
    b. Antebellum houses
    c. Tourist attractions or facilities (e.g., bed and breakfast inns)

C. What is the zoning and existing land use of the prospective site and nearby area?

1. Is the site located near existing heavy industrial, chemical process or refinery operations?
2. Is there a precedent for chemical contamination near the site or is the soil and waster pristine?
3. Is the area particularly noted for its esthetic beauty?

D. Is the site flood prone?

1. Is the site in al flood plain?
    a. How current are the maps used to make flood plain determinations?
    b. What is the elevation of the site?
    c. Is diking required or desired to provide flood protection?
        i. What is the design height of the dike?
        ii. How is the dike protected from erosion?
        iii. What frequency and design storm was used?
        iv. Is the access to the site over or through dikes?

2. Is the site hurricane vulnerable?
    a. Is the site in an area subject to storm surge?
    b. What are the design storm specifications?
    c. Should damage from wave action be considered?
    d. For what levels of wind speed is the facility designed?

E. Is groundwater protected?

1. Are aquifers or recharge areas underlying the site used for drinking water?
2. What is the relationship of the site to the water table?
3. What wells exist in the area?
4. What is the flow rate and direction of the groundwater flow?
5. What is the groundwater quality in the underlying aquifers?
6. Is there a hydraulic connection between the aquifers?

F. Does prospective site pose potential health risks as defined by proximity to:

1. Prime agricultural area (crop or pasture land)
2. Residential area
3. Schools or day care centers
4. Hospitals or prisons
5. Public Buildings or entertainment facilities
6. Food storage area
7. Existing community health problems that may be aggravated by operation of additional hazardous waste disposal capacity

G. Is air quality protected?

1. Is the site within an ozone or non-attainment area?
2. What containments are likely to be generated at the site?
3. What protection is afforded from each containment generated by the site?
4. What is the potential for unregulated emissions?
5. What plans are implemented to provide for odor control?
6. Who will be affected by emissions?
    a. What is the direction of the prevailing winds?
    b. Describe the expected frequency of "bad air" conditions.
7. Describe the control of vapors at various stage of process.

H. Have physical site characteristics been studied; what has been done in terms of a geotechnical in investigation?

1. Site geology
2. Hydrology
3. Topography
4. Soil properties
5. Aquifer location
6. Subsidence problems
7. Climatic conditions

V. Are there mitigating measure which would offer more protection to the environment that eh facility as proposed without unduly curtailing nonenvironmental benefits?

A. Is this facility part of a master plan to provide waste management? Whose Plan?

1. How does it fit into the plan?
2. What geographical area is served by the plan?

B. Does this facility fit into an integrated waste management system? (reduction, recovery, recycling, sales tax, exchange, storage, treatment, disposal).

1. On-site
2. Regional

C. Can waste be disposed in another fashion (way)?

1. Technology limitations
2. Cost factors
3. Other reasons

D. What quality assurance control will be utilized to protect the environment?

1. Plans for lab work
2. How are out-of spec waste handled
3. What happens to rejected wastes
4. Treatment stabilization
5. Segregation of noncompatible wastes
6. Handling of containerized wastes

E. Surface techniques used to control release of waste or waste constituents into the environment.

1. Surface impoundment
2. Land application treatment
3. Landfill (burial)
4. Incinerator
5. Container storage
6. Tanks.